**Closed-end fund market overview**

Equities moved higher in the second quarter amid moderating inflation, stronger than expected corporate earnings and the Federal Reserve ("Fed") pausing its interest rate hikes for the first time in 15 months. The S&P 500 finished the quarter up 8.7%. Fixed income markets were down slightly for the quarter as longer-date yields moved higher over the 3-month period. The 10-year US treasury started the quarter at 3.48% and ended at 3.81%. The Bloomberg US Aggregate Bond Index, finished the quarter down -0.8%. High yield bonds were positive for the quarter given increased investor appetite for risk assets in June.

Closed-end funds ("CEFs") were up across almost all major categories in the second quarter, with the median CEF up 1.7% on net asset value ("NAV") and up 1.1% on market price. Equity CEFs (option strategies) were the best performing category for the quarter, up 5.4% on NAV and up 3.6% on market price.

### Second Quarter CEF total returns % (NAV and market price)

![Bar chart showing total returns for different CEF categories]

- **Equity (Option Strategies)**: 5.4% NAV, 3.6% Market Price
- **Bank Loan**: 3.2% NAV, 4.5% Market Price
- **General Bond**: 2.2% NAV, 3.0% Market Price
- **High Yield**: 1.8% NAV, 3.6% Market Price
- **All CEFs**: 1.7% NAV, 1.1% Market Price
- **Sector Equity**: 1.0% NAV, 0.3% Market Price
- **Municipal**: -1.8% NAV, -0.8% Market Price
- **Investment Grade**: -0.5% NAV, -0.5% Market Price

### CEF discounts widened during the second quarter by 50 basis points. The median CEF industry discount is now ~10.7%, wider than the 5-year median industry discount of ~7.4%. Sector equity CEFs currently trade at the widest discounts in the space, at a median of ~14.0%. We believe this has been generally driven by investor aversion to owning growth sectors in a high inflation and rising rate environment. Muni CEFs also trade at wide discounts, currently at ~13.0%, likely due to the pressure rising short-term interest rates has had on leverage costs and distribution stability in the space.

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1. Source: Morningstar as of 6/30/2023
2. Source: Lipper as of 6/30/2023
3. CEFs refers to the median of the universe.
Municipal bonds ended the period slightly positive thanks to strong performance towards the end of the quarter. Muni CEF NAV's were propelled higher as yields moved lower across the yield curve in June. The median municipal CEF was up 0.7% on NAV, but down -1.8% on market price over the quarter.

The market price underperformance was led by discount widening in the space. Municipal CEF discounts widened over the second quarter by 250 basis points, finishing at a median of -13.0%. Discounts in the space remain elevated compared to their 5-year median of -7.4%. This is likely due to distribution reductions across the industry in the first half of 2023. Because leveraged Muni CEFs borrow at short term interest rates and typically invest in Muni bonds with longer maturities, a flatter yield curve (i.e. narrower spread) may negatively impact the earnings of a leveraged CEF. Over the past few years, leverage costs have increased sharply as the Fed has rapidly raised short-term interest rates by over 5%. The SIFMA Municipal Swap Index, a common base rate used to calculate municipal CEF leverage costs, currently sits a 4.01%, which is 291 basis points higher than the 5-year average rate of 1.10%.

As investors rely on these funds for monthly cash flow, any reduction in distribution may lead investors to look elsewhere for yield, causing selling pressure on the secondary market, widening discounts to NAV in the funds.

### Fixed income

Bonds* were down slightly in the second quarter as long-dated yields moved higher, sending bond prices lower. On the credit side, lower quality higher yield bonds moved higher in the second quarter, slightly outperforming investment grade debt. This is likely due to investor optimism in June relating to the economy and investors becoming more comfortable owning riskier assets in exchange for a higher potential return. Fixed Income CEFs were up 3.2% on NAV and up 4.0% on market price for the quarter.

Fixed income CEF discounts narrowed 100 basis points over the second quarter, finishing at a median discount of -8.9%. Wide discounts in the space have boosted market price yields. Currently, the median high yield CEF yields 10.5% and the median bank loan CEF yields 11.4%.

*Bonds are represented by the Bloomberg US Aggregate Bond Index.
3Source: Lipper as of 6/30/2023.
4Source: SIFMA as of 6/28/23. The SIFMA Municipal Swap Index is a 7-day high-grade market index comprised of tax-exempt Variable Rate Demand Obligations (VRDOs) with certain characteristics. The Index is calculated and published by Bloomberg. The Index is overseen by SIFMA’s Municipal Swap Index Committee.
Equity

Stocks had a strong second quarter as risk assets rallied in June thanks to a Fed pause in their rate hike cycle, abating inflation, and stronger than expected economic data. Technology and consumer discretionary were the best performing sectors while energy and utilities were down the most in the second quarter. Equity CEFs finished the quarter up a median of 3.2% on NAV and up 2.0% on market price.

Equity (option strategies) discounts widened in the second quarter by 40 bps to finish at a median of -3.7%. Sector equity CEF discounts widened 260 basis points over the quarter, finishing at a median of -14.0%. The widening was magnified in financial CEFs given the negative market sentiment surrounding regional banks.

Current Premium/Discount versus 5-Year Median as of June 30, 2023

Distribution Rate (% of Market Price) as of June 30, 2023

Source: Lipper as of 6/30/2023

Distribution rate is calculated by annualizing the fund's latest declared regular distribution and dividing that number by the funds market price as of the stated date. Distributions are sourced from net investment income, unless noted otherwise. Tax-Equivalent Distribution Rate calculated using a 40.8% effective tax rate.

3 Data sourced from Lipper as of 6/30/2023.
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Index description:
SIFMA Municipal Swap Index: 7-day high-grade market index comprised of tax-exempt Variable Rate Demand Obligations (VRDOs) with certain characteristics. The Index is calculated and published by Bloomberg. The Index is overseen by SIFMA’s Municipal Swap Index Committee.

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